

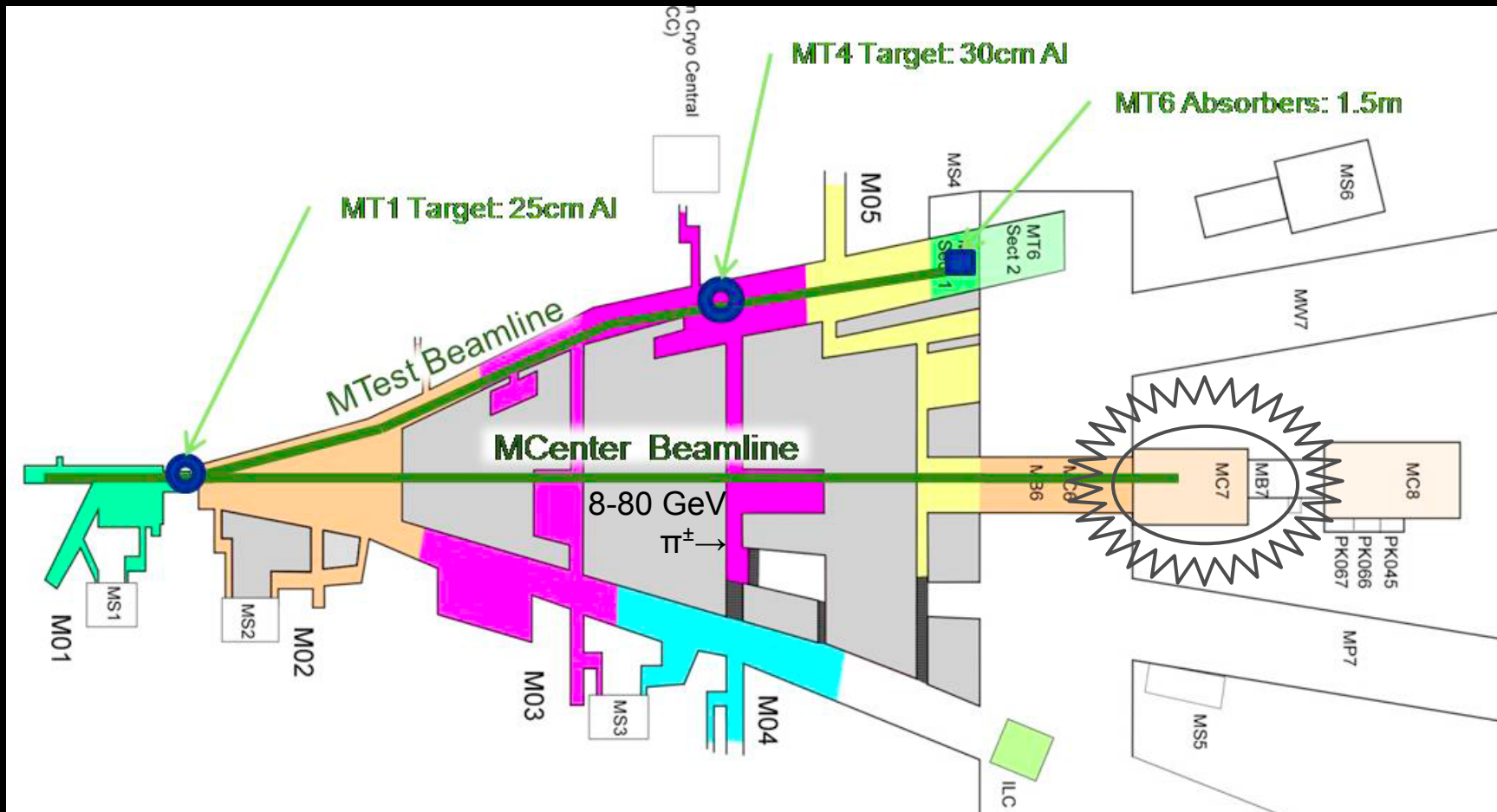
LArIAT

Liquid In A Testbeam

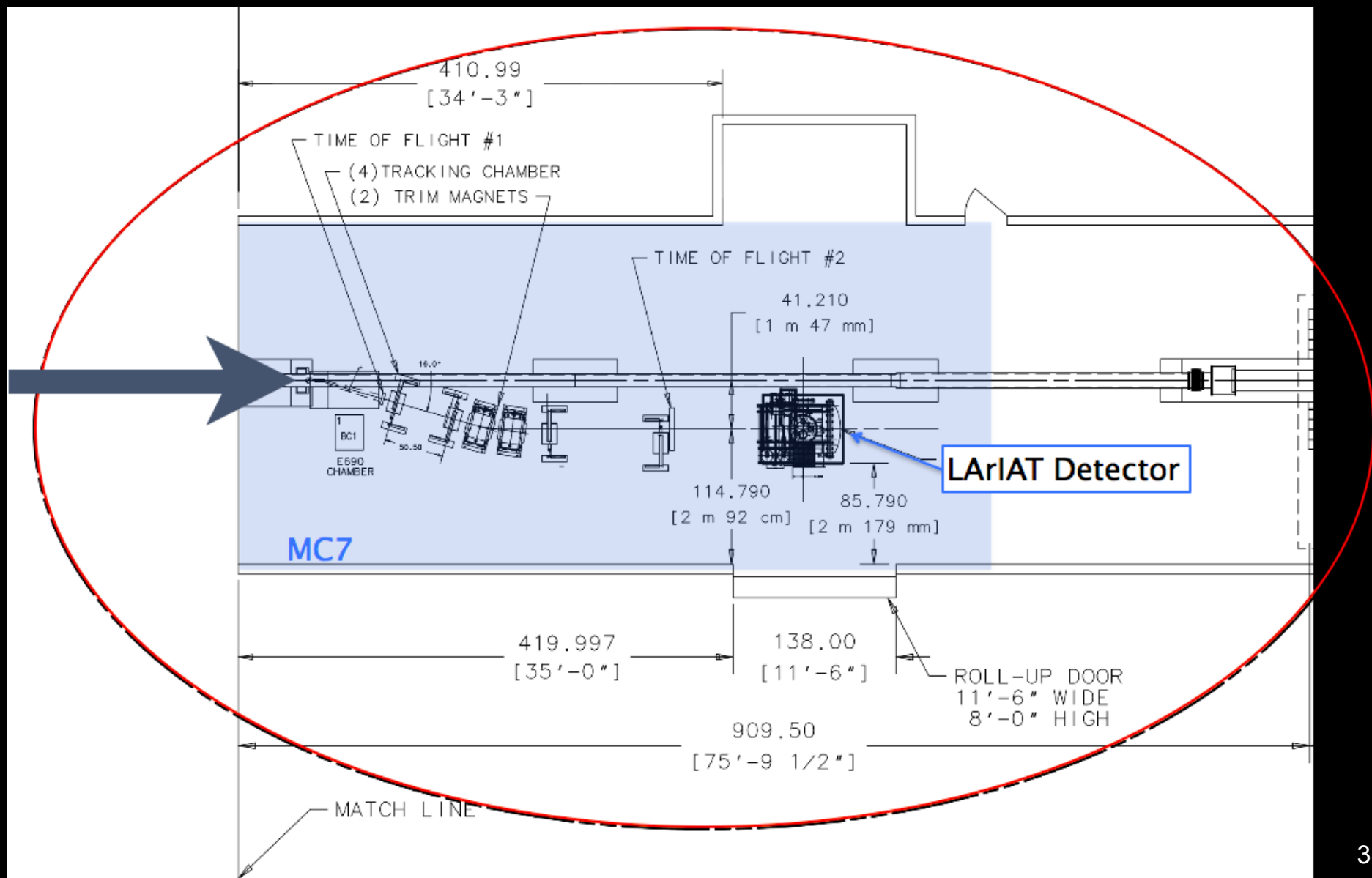
Jason St. John for the T-1034 Collaboration
All Experimenters' Meeting
2015.04.06

Quick intro to LArIAT

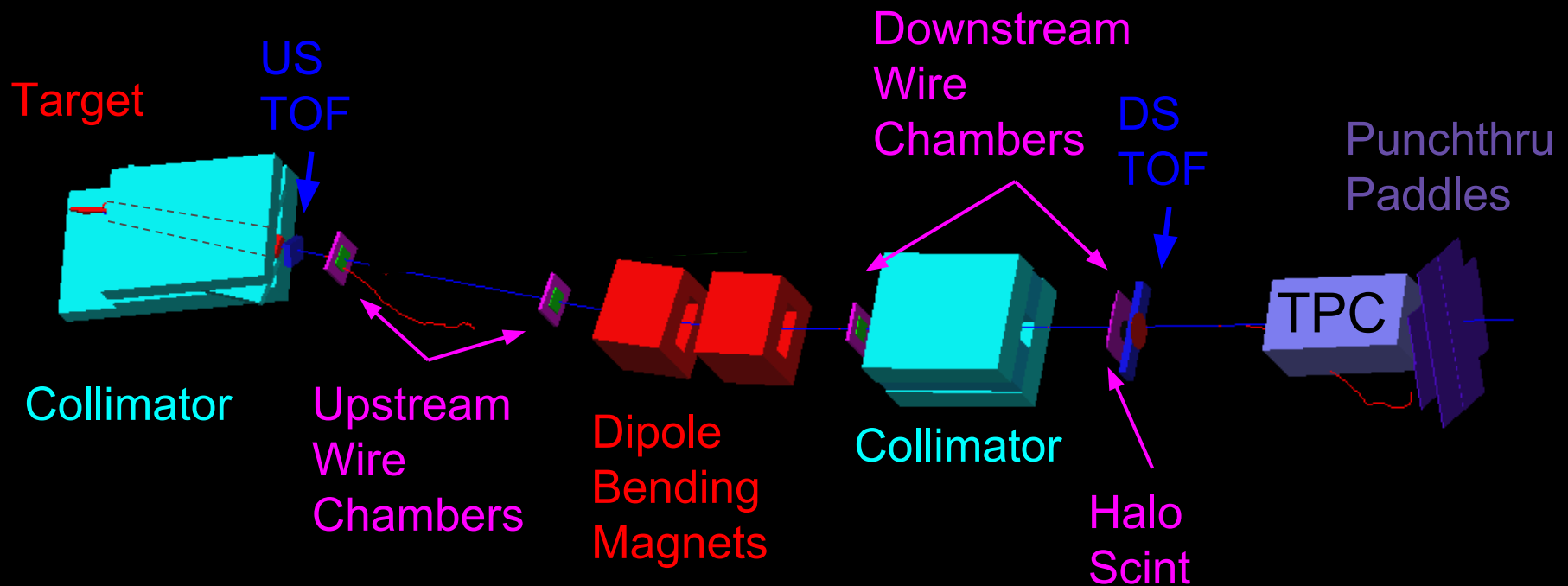
Receives MCenter beam: 8-80 GeV π^\pm



Quick intro to LArIAT



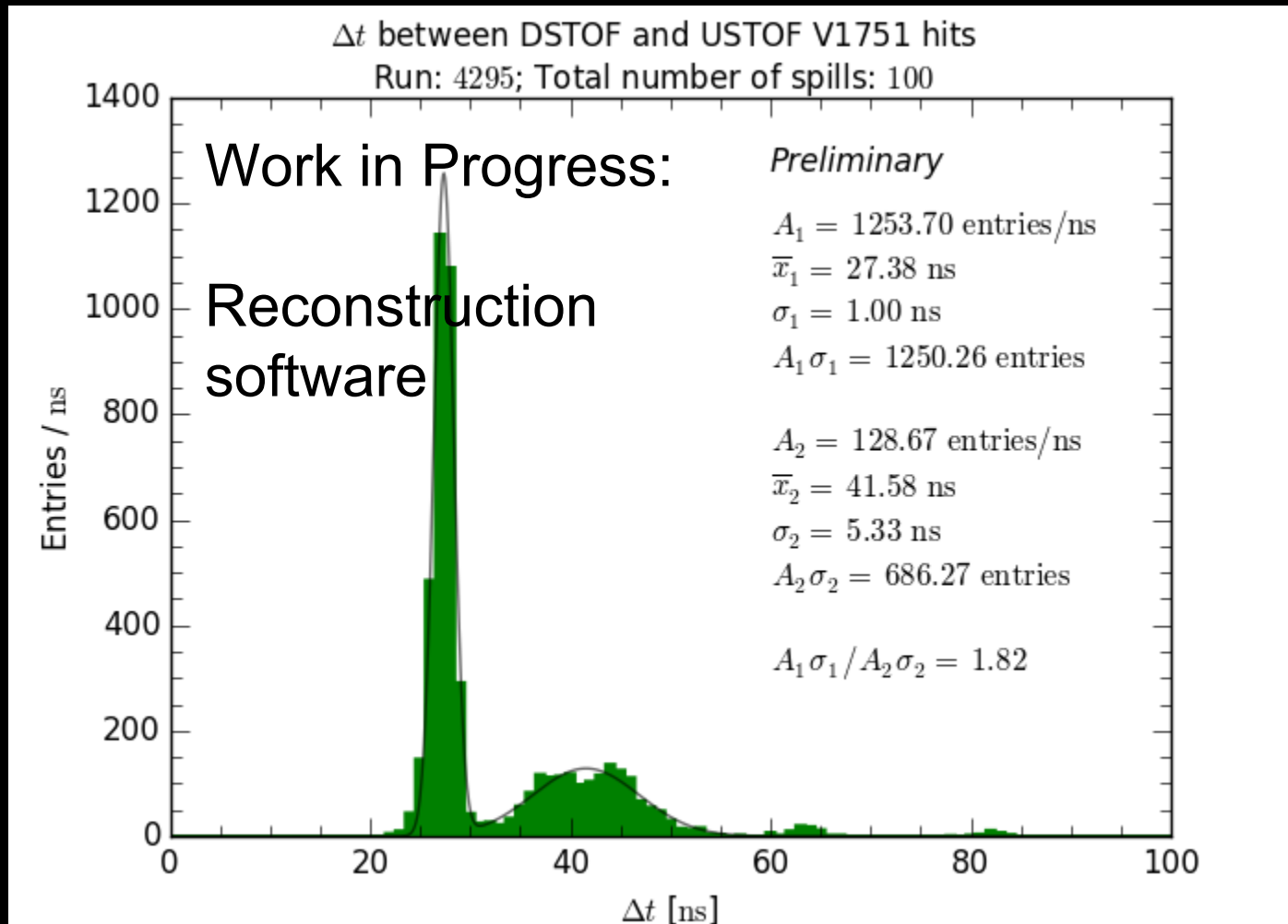
Quick intro to LArIAT



Beamline Instruments installed and commissioned



Tertiary beam, DAQ/Trigger commissioning nearly complete



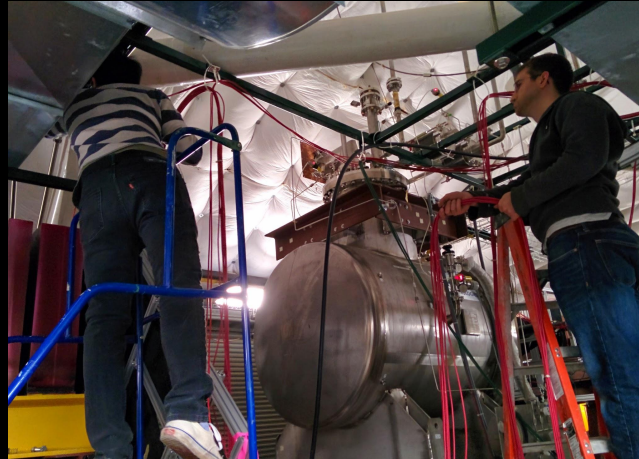
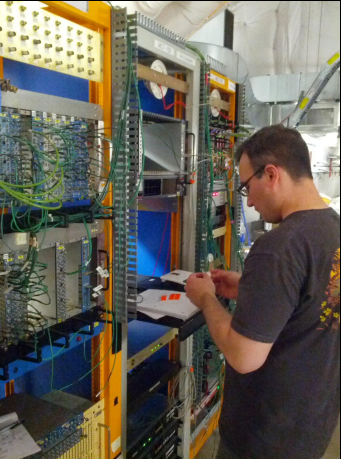
Cryostat and TPC

A large, cylindrical, metallic cryostat is the central focus of the image. It is surrounded by a complex network of red, green, and blue cables, some of which are bundled together. The cryostat is mounted on a metal frame. In the background, there are various laboratory components, including a large white pipe and a metal structure with a grid pattern. The overall scene is a technical laboratory environment.

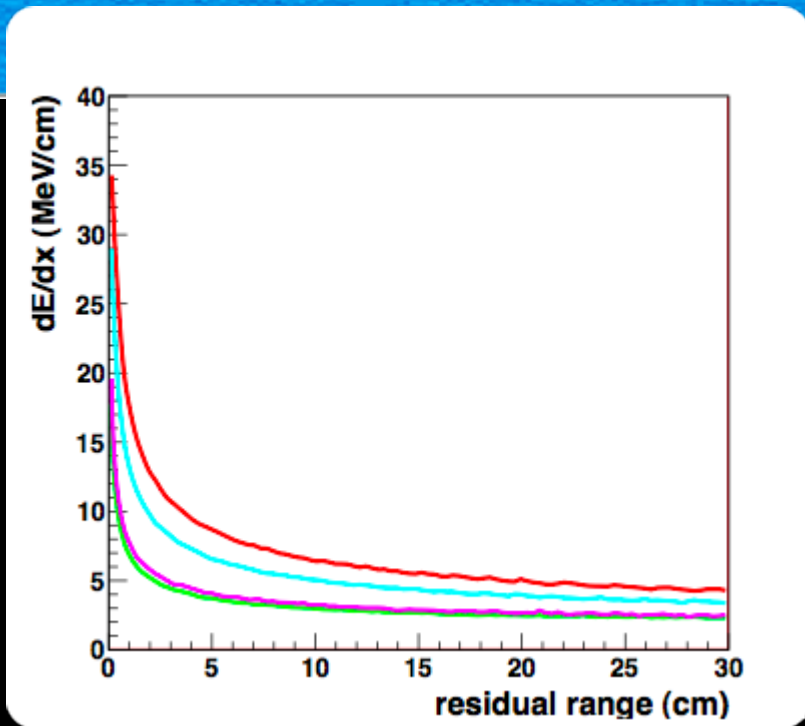
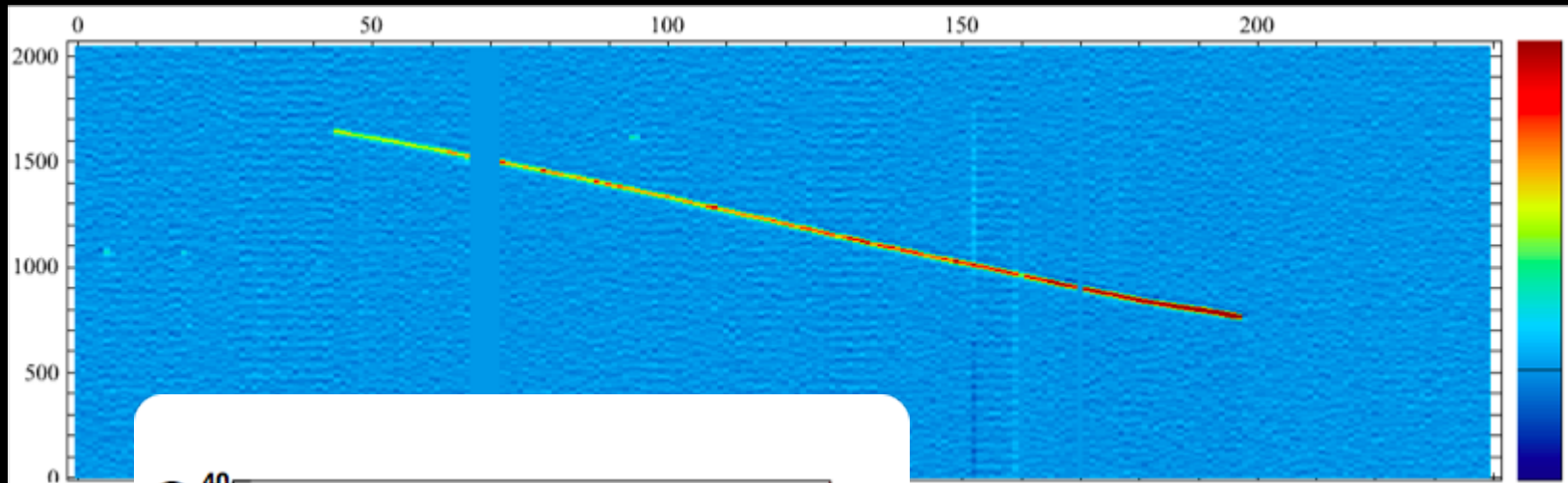
TPC sense wire readout
installed & commissioned.

Cryostat plumbing being
completed now.

More from LArIAT soon!



Scientific Goals for LArIAT



Single tracks + 3D imaging
⇒ dE/dx vs. residual range

Experimental determination of
proton ID, p/K separation,
K/ π / μ separation for LArTPCs

Scientific Goals for LArIAT

Separation efficiency and sample purity for EM shower initiators in LAr TPCs

e^-/γ separation critical to MicroBooNE resolving MiniBooNE low-E excess

